



LINEAR ALGEBRA AND ITS APPLICATIONS

Editor-in-Chief

Richard A. Brualdi and Hans Schneider

Department of Mathematics, The University of Wisconsin, Madison, Wisconsin 53706

Associate Editors

T. Ando

Division of Applied Mathematics
Research Institute of Applied
Electricity
Hokkaido University
Sapporo 060, Japan

George P. Barker*

Mathematics Department
University of Missouri
at Kansas City
5100 Rockhill Road
Kansas City, Missouri 64110

Stephen Barnett

University of Bradford
West Yorkshire
Bradford BD7 1DP, England

Bryan Cain

Department of Mathematics
Iowa State University
Ames, Iowa 50011

Graciano de Oliveira

Departamento de Matematica
Apt. 3008,
Universidade de Coimbra
3000 Coimbra, Portugal

Ludwig Elsner

Fakultät für Mathematik
Universität Bielefeld
Postfach 8640
D-4800 Bielefeld,
West Germany

Edward Formanek

Department of Mathematics
Pennsylvania State University
University Park,
Pennsylvania 16802

Shmuel Friedland

Institute of Mathematics
Hebrew University
Jerusalem, Israel

Paul A. Fuhrmann

Department of Mathematics
Beer Gurion University
of the Negev
Beer Sheva, Israel

J. Alan George

Department of Computer
Science
University of Waterloo
Waterloo, Ontario,
Canada, N2L 3G1

Moshe Goldberg

Department of Mathematics
Technion—Israel Institute
of Technology
Haifa 32000
Israel

Robert Guralnick

Department of Mathematics
University of Southern
California
Los Angeles, California
90089-1113

Robert E. Hartwig

Department of Mathematics
North Carolina State University
Raleigh, North Carolina 27650

Charles R. Johnson

Mathematical Sciences
Department
Clemson University
Clemson, South Carolina
29631

Thomas J. Laffey

Department of Mathematics
University College Belfield
Dublin 4, Ireland

Peter Lancaster

Department of Mathematics
University of Calgary
Calgary, Alberta,
Canada T2N 1N4

Raphael Loewy

Department of Mathematics
Technion—Israel Institute of
Technology
Haifa, 32000
Israel

Michael Neumann

Department of Mathematics
The University of Connecticut
Storrs, Connecticut 06268

Beresford N. Parlett

Department of Mathematics
University of California
Berkeley, California 94120

Vera S. Pless

Department of Mathematics
University of Illinois
Chicago, Illinois 60680

Vlastimil Pták

Institute of Mathematics
Czechoslovak Academy
of Sciences
Žitná 25, 115 67 Praha 1
Czechoslovakia

C. R. Rao

Department of Mathematics
and Statistics
University of Pittsburgh
Pittsburgh, Pennsylvania 15260

Donald Rose

Computer Science Department
Duke University
Durham, North Carolina 27706

Uriel Rothblum

Faculty of Industrial
Engineering Management
Technion—Israel Institute
of Technology
Technion City, Haifa 32000,
Israel

George P. H. Styan

Department of Mathematics
and Statistics
McGill University
Montreal, Quebec
Canada H3A 2K4

Harald Wimmer

Department of Mathematics
University of Würzburg
D-8700 Würzburg,
West Germany

*Special responsibility for book reviews.

Advisory Editors

F. L. Bauer

Institut für Informatik
Technischen Universität München
Postfach 20 24 20
D-8000, München 2
West Germany

David H. Carlson

Mathematical Sciences
Department
San Diego State University
San Diego, California 92182

Richard W. Cottle

Department of Operations
Research
Stanford University
Stanford, California 94305

Chandler Davis

Department of Mathematics
University of Toronto
Toronto M5S 1A1, Canada

Emeric Deutsch

Department of Mathematics
Polytechnic Institute
of New York
333 Jay Street
Brooklyn, New York 11201

Ky Fan

Department of Mathematics
University of California
Santa Barbara, California
93106

Miroslav Fiedler

Institute of Mathematics
Czechoslovak Academy
of Sciences
Žitná 25, 115 67 Praha 1
Czechoslovakia

Gene H. Golub

Computer Science Department
Stanford University
Stanford, California 94305

Thomas Kailath

Department of Electrical
Engineering
Stanford University
Stanford, California 94305

Victor L. Klee

Department of Mathematics
University of Washington
Seattle, Washington 98195

Marvin D. Marcus

Department of Mathematics
University of California
Santa Barbara, California 93106

Ingram Olkin

Statistics Department
Stanford University
Stanford, California 94305

Robert J. Plemmons

Department of Mathematics
North Carolina State University
Raleigh, North Carolina 27650

J. J. Seidel

Department of Mathematics
University of Technology
Den Dolech 2, P.O. Box 513
5600 MB Eindhoven
The Netherlands

G. W. Stewart

Department of Computer
Science
University of Maryland
College Park, Maryland 20742

Robert C. Thompson

Department of Mathematics
University of California
Santa Barbara, California 93106

Richard S. Varga

Department of Mathematics
Kent State University
Kent, Ohio 44240

Helmut Wielandt

Kirchbichlweg 16a
D-8162 Schliersee
West Germany

James H. Wilkinson

National Physical Laboratory
Teddington,
Middlesex TW11 0LW
England

Founding Editors

Alan J. Hoffman

IBM
Mathematical Sciences Department
Research Division, Box 218
Yorktown Heights, New York 10598

Alston S. Householder

6235 Tapia Drive
Malibu, California 90265

Alexander M. Ostrowski

Certenago/Montagnola (Ticino)
Switzerland

Olga Taussky Todd

California Institute of Technology
Pasadena, California 91125